

CLAIMS:

1. A conductor material for LEDs for improving the light outcoupling, wherein
 - the conductor material is selected from the group comprising hole conductor material, electron conductor material and/or emitter material,
 - the conductor material comprises at least one conductive fluorinated organic substance having at least one fluorinated alkyl substituent, one fluorinated alkenyl substituent and/or one fluorinated alkynyl substituent, wherein at least two fluorine atoms are bonded to at least one carbon atom of the fluorinated substituent, and
 - the conductive fluorinated organic substance has a refractive index of ≥ 1.30 and ≤ 1.55 .
2. A conductor material as claimed in claim 1, wherein the fluorinated substituent is a linear or branched alkyl, alkenyl and/or alkynyl substituent.
3. A conductor material as claimed in claim 1 or 2, wherein C_mF_{m+X} applies in respect of at least one fluorinated substituent, in which
 - $m = 1$ to 20 , preferably $m = 2$ to 16 , more preferably $m = 4$ to 12 ; and
 - $X = 1$ to $m+1$, with m being an integer.
4. A conductor material as claimed in any of claims 1 to 3, wherein the conductive fluorinated organic substance is a monomer, oligomer or polymer, the conductive fluorinated substance preferably comprising conjugated double and/or triple bonds and preferably having a molecular weight of ≥ 100 and $\leq 300,000$.
5. A conductor material as claimed in any of claims 1 to 4, wherein the conductive fluorinated organic substance is selected from the group comprising aryl compounds, perfluorinated adamantane, triphenylamine compounds, carbazole compounds, oxadiazole compounds, triazole compounds, triazine compounds, fluorene compounds, hexaphenylbenzene compounds, phenanthroline compounds, pyridine compounds, polyfluorene with perfluorinated side chains, conjugated polymers, poly-para-phenylene

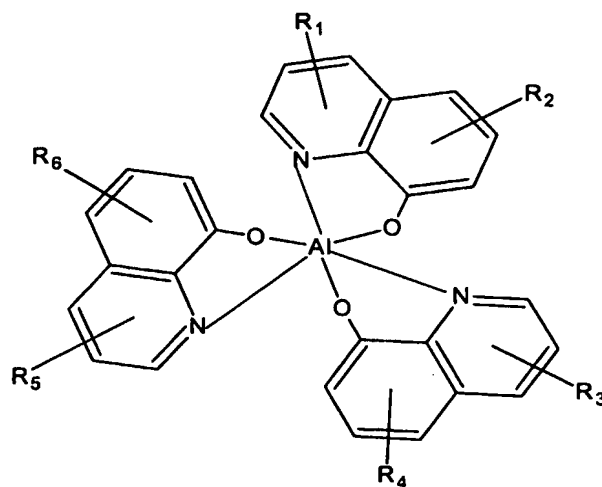
vinylene (PPV), polyvinylcarbazole, metal complexes, in particular metal complexes comprising Al, Ga and/or Zn as metal ion, quinoline compounds, acetylacetonate compounds, bipyridine compounds, phenanthroline compounds and/or metal complexes comprising carboxylic acids as ligand.

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6. A conductor material as claimed in any of claims 1 to 5, wherein the conductive fluorinated organic substance preferably has a refractive index of ≤ 1.50 , more preferably a refractive index of ≤ 1.45 , even more preferably a refractive index of ≤ 1.40 , particularly preferably a refractive index of ≤ 1.39 and most preferably a refractive index of ≤ 1.37 .

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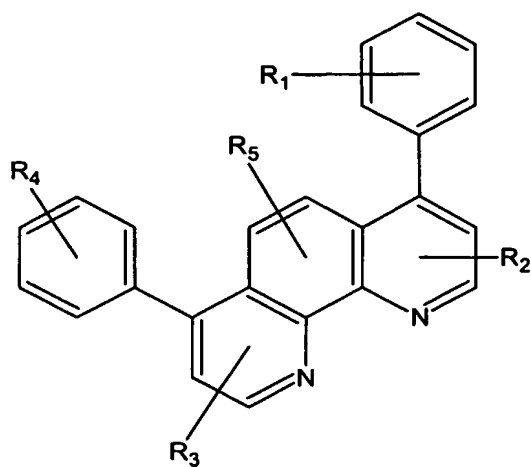
7. A conductor material as claimed in any of claims 1 to 6, wherein the conductive fluorinated organic substance is selected from the group comprising at least one compound having one of the following structural formulae I to XX:



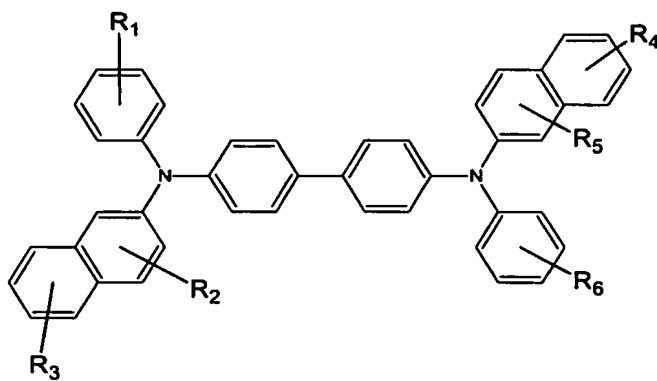
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Formula I

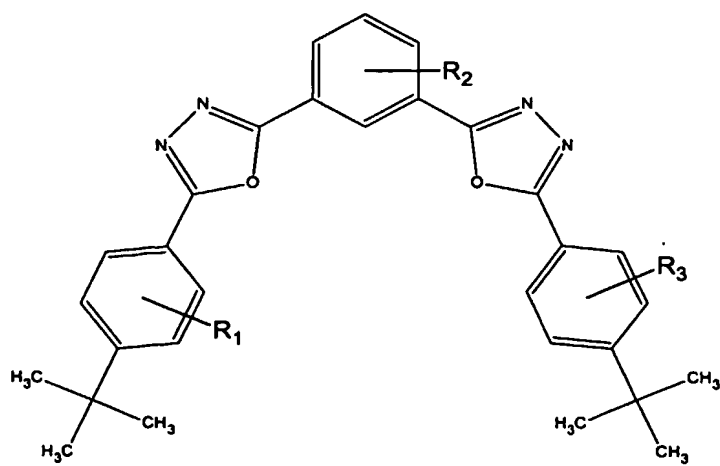
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Formula II

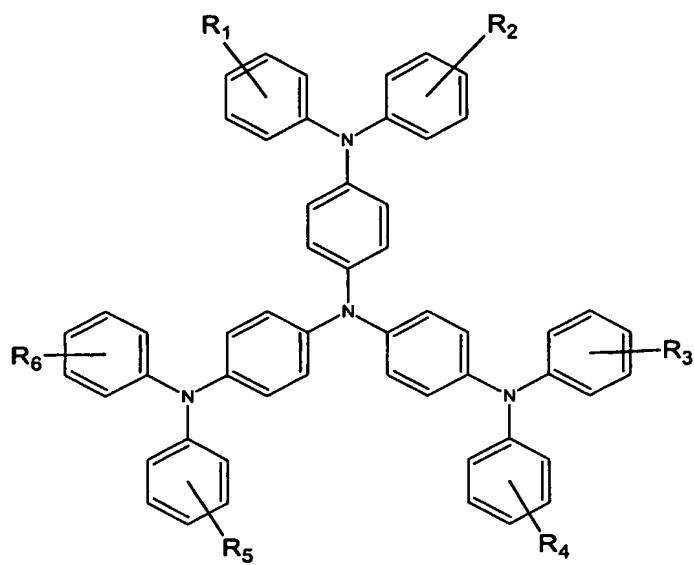


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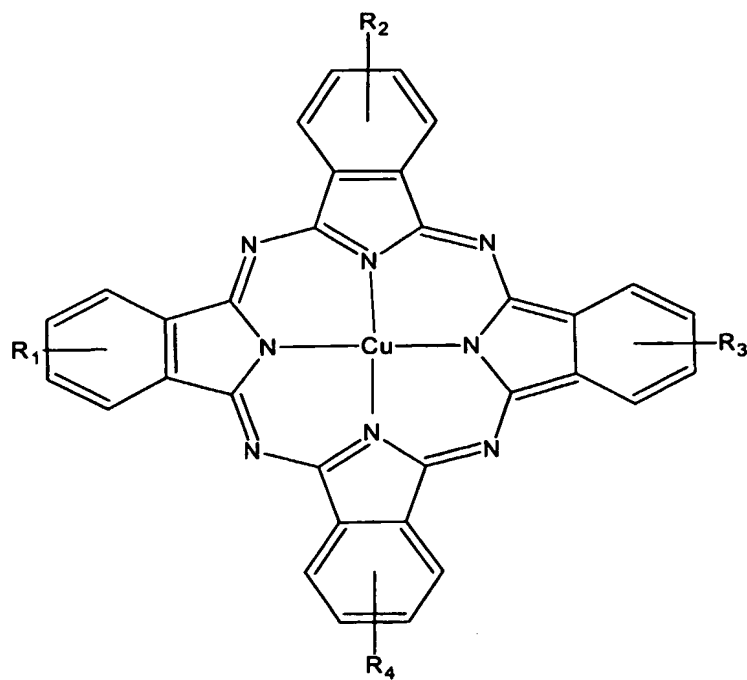


Formula IV

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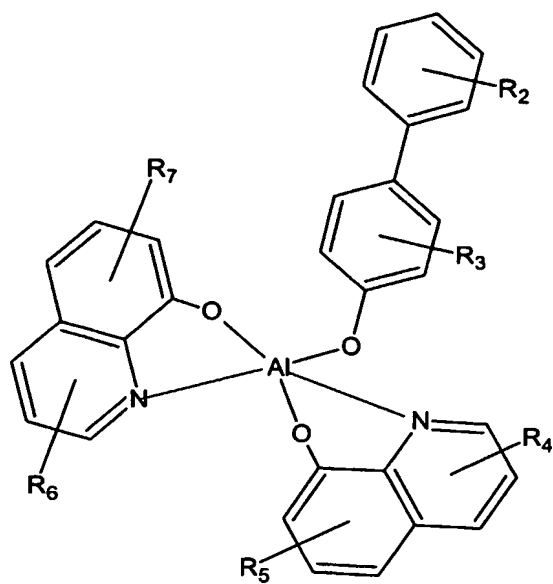


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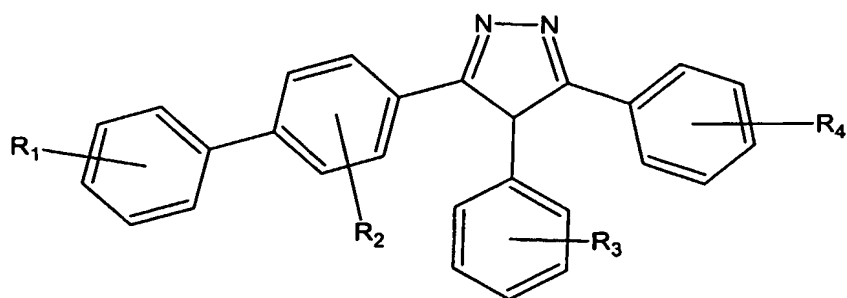


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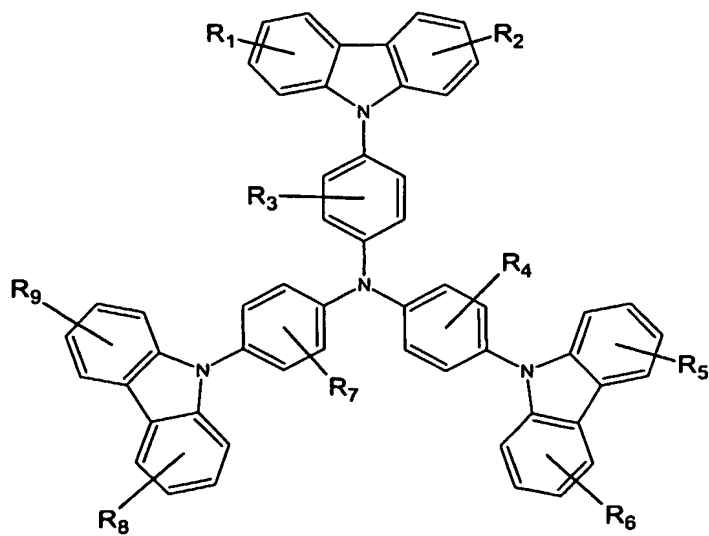
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Formula VII

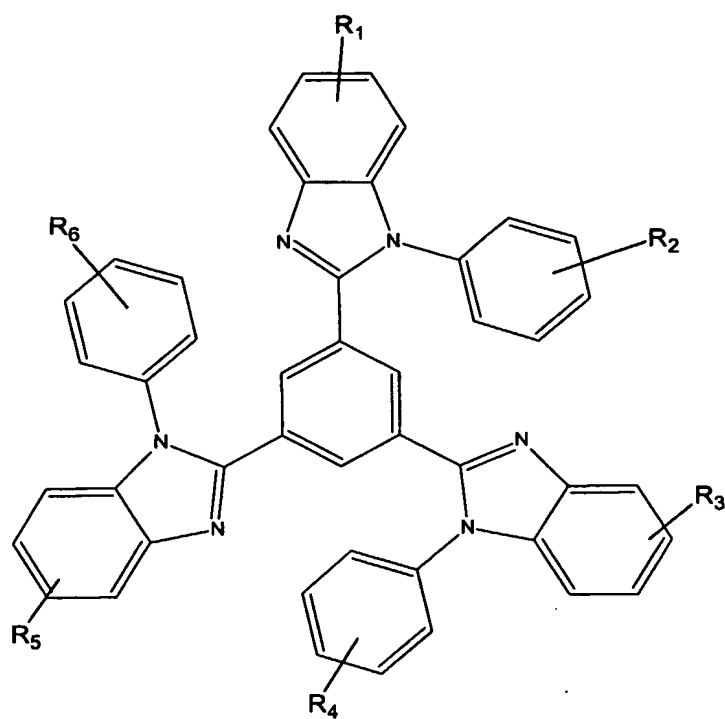


Formula VIII



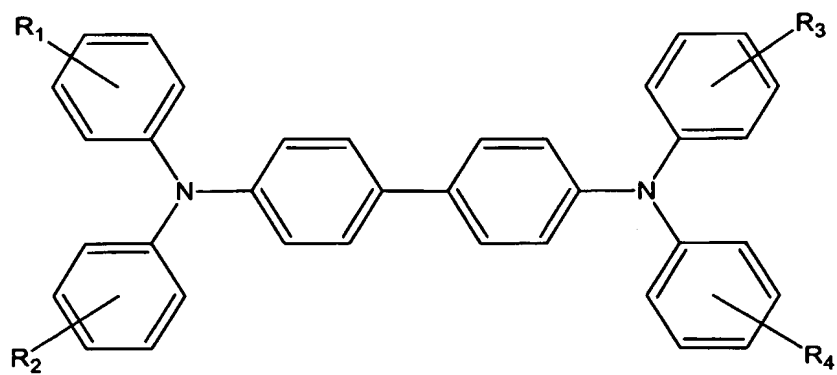
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Formula IX



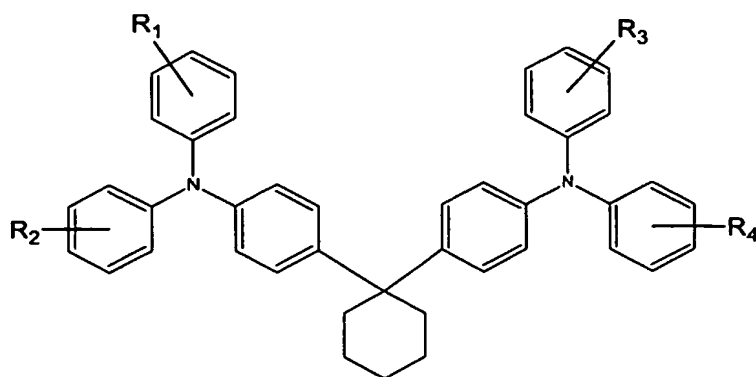
Formula X

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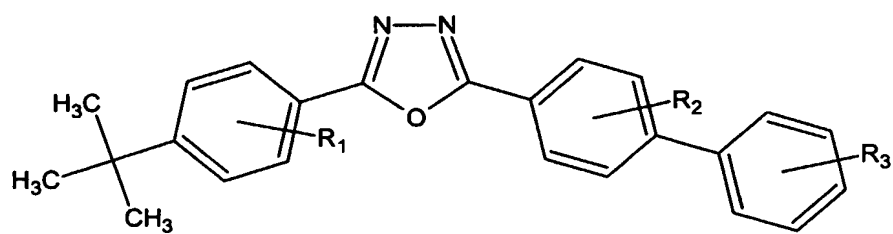


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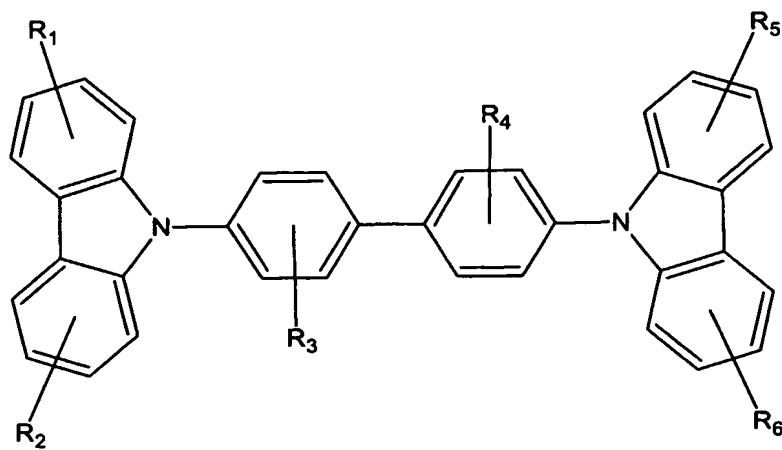
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Formula XII

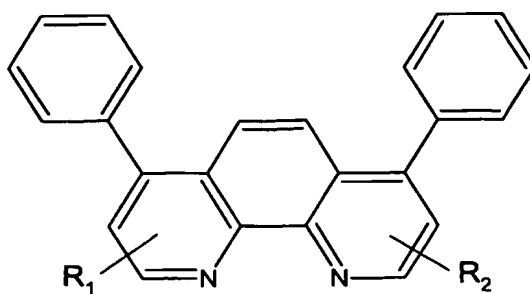


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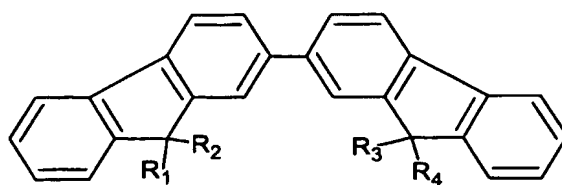


Formula XIV

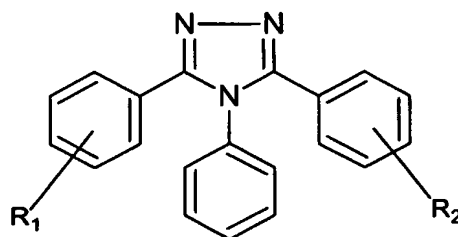
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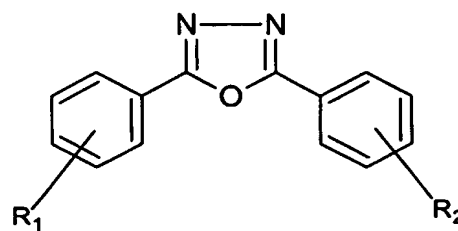
Formula XV



Formula XVI

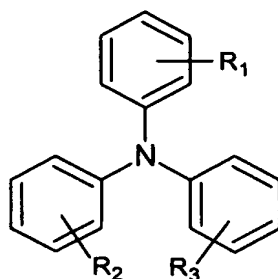


Formula XVII

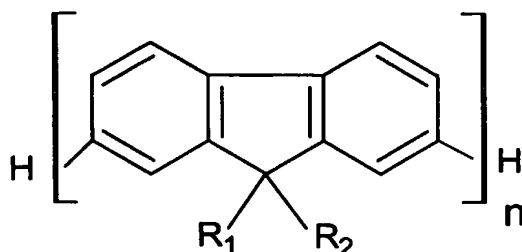


Formula XVIII

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Formula XIX



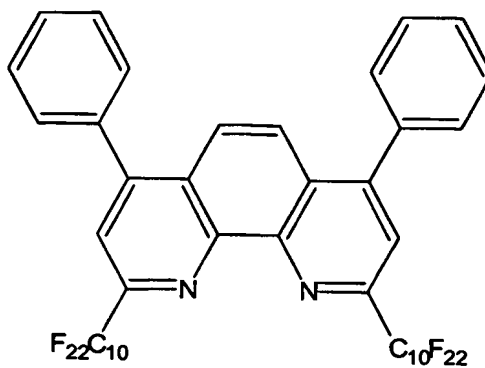
Formula XX

in which R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_8 and R_9 are at least partially identical or different and are selected from the group comprising hydrogen, hydroxyl, alkyl, alkenyl, alkynyl, alkoxy, aryl, alkylene, arylene, amines, halogen, carboxylate derivatives, cycloalkyl, carbonyl derivatives, heterocycloalkyl, heteroaryl, heteroarylene, sulfonate, sulfate, phosphonate, phosphate, phosphine and/or phosphine oxide, wherein at least one R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_8 and/or R_9 represents a fluorinated alkyl substituent, a fluorinated alkenyl substituent and/or a fluorinated alkynyl substituent in which at least two fluorine atoms are bonded to at least one carbon atom; and

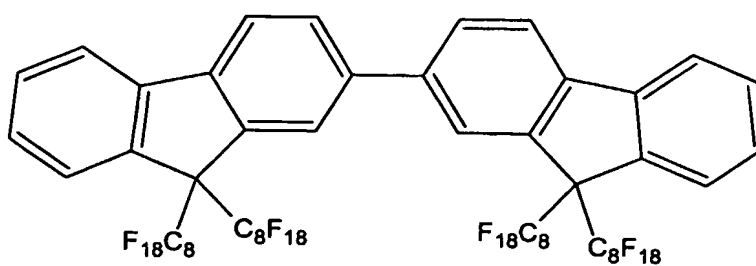
in which $n = 1$ to 10,000,000, preferably 10 to 1,000,000, more preferably 100 to 500,000, even more preferably 500 to 250,000, particularly preferably 1000 to 100,000 and most preferably 5000 to 50,000.

8. A conductor material as claimed in any of claims 1 to 7, wherein the conductive fluorinated organic substance is selected from the group comprising at least one compound having one of the following structural formulae XXI to XXVI:

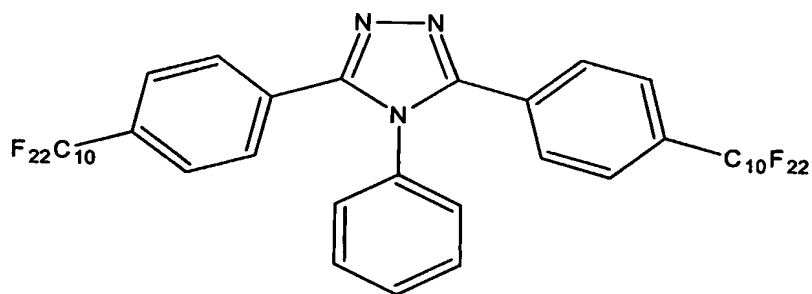
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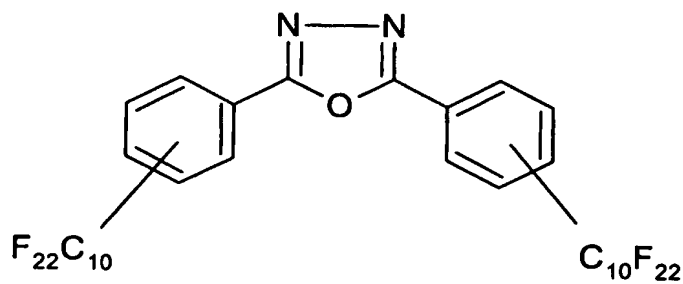
Formula XXI



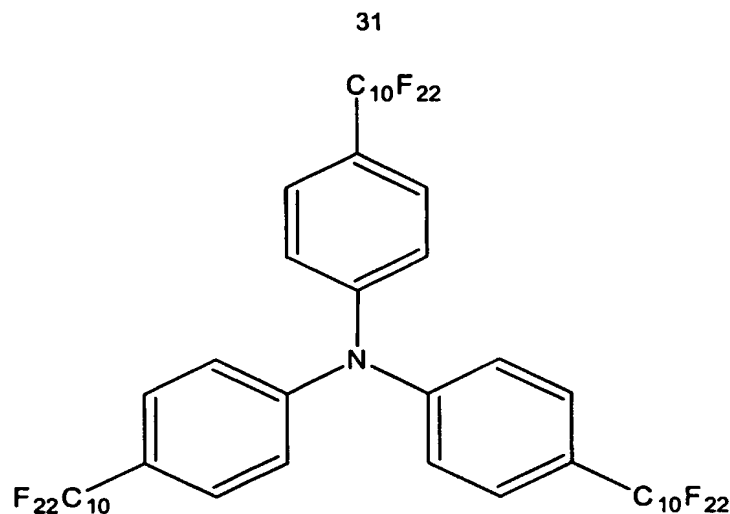
Formula XXII



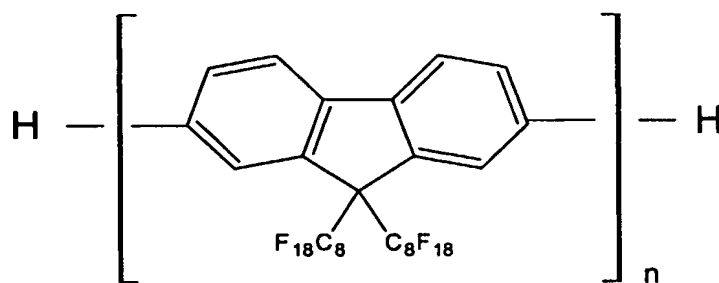
Formula XXIII



Formula XXIV



Formula XXV



Formula XXVI

in which $n = 1$ to 10,000,000, preferably 10 to 1,000,000, more preferably 100 to 500,000, even more preferably 500 to 250,000, particularly preferably 1000 to 100,000 and most preferably 5000 to 50,000.

9. A diode, in particular an organic light-emitting diode (OLED) or polymer light-emitting diode (polyLED), comprising one or more layers having a refractive index of $\geq X$ and ≤ 1.5 and/or one or more layers which comprise at least one conductive fluorinated organic substance as claimed in any of the preceding claims 1 to 8.

10. A luminous means comprising at least one diode, in particular an OLED and/or polyLED as claimed in claim 9.